

ABSTRACT

A method and apparatus using dual bounding boxes as dynamic templates for cartridge rack identification and tracking is disclosed. An imaging tape cartridge picker system includes a picker assembly, illumination sources disposed at the front 5 of the picker assembly for illuminating an object, an imager disposed on the front of the picker assembly for gathering image data of the object and a processor, coupled to the imager and illumination sources, for thresholding the image data obtained from the imager and for controlling the illumination sources, wherein the processor uses bounding boxes to identify the location of a desired physical feature in the 10 thresholded image. The processor identifies the location of the desired physical feature using the bounding boxes by finding a vertical feature of the desired physical feature by finding a valid vertical bounding box, determining whether a valid vertical feature is found, using the valid vertical feature as a reference point for the search for the horizontal feature and finding a valid horizontal bounding box of the desired 15 physical feature when a vertical feature is positively identified, determining whether a valid horizontal feature is found and identifying a top-left intersection of the vertical and horizontal bounding boxes with the bottom-right corner of the desired physical feature when a valid horizontal feature is found.